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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
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8 *Ex parte* EDWARD D. BRILL and RICK L. HABBEN
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11 Appeal 2008-4093
12 Application 09/855,989
13 Technology Center 3700
14

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16 Decided: October 31, 2008
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19 *Before* WILLIAM F. PATE, III, JENNIFER D. BAHR and DANIEL S.
20 SONG, *Administrative Patent Judges*.

21
22 SONG, *Administrative Patent Judge*.

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24 DECISION ON APPEAL

25
26 STATEMENT OF THE CASE

27 The Appellants appeal under 35 U.S.C. § 134 (2002) from rejection of
28 claims 1-14 and 17-21. Claims 15, 16 and 22 stand withdrawn from
29 consideration. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

30 The Appellants claim a vibrator motor that can be used in a hair
31 clipper.

Representative independent claim 1 reads as follows:

1. A vibrator motor comprising:
a stationary piece having a plurality of laminations; and
a moving piece having a plurality of laminations, the
moving piece being hingedly secured to the stationary piece by
interlocking the moving piece laminations with the stationary
piece laminations so that the moving piece laminations and
stationary piece laminations form a hinge which secures the
moving piece laminations to the stationary piece laminations.

Independent claim 17 is directed to a hair clipper having a motor with
the components recited in independent claim 1.

The prior art relied upon by the Examiner in rejecting the claims is:

Davis	3,357,101	Dec. 12, 1967
Pfenning	3,735,297	May 22, 1973
Huppert	5,771,538	Jun. 30, 1998
Wahl	5,787,587	Aug. 4, 1998
Soultanian	6,163,092	Dec. 19, 2000
Kienzler	WO 00/27599	May 18, 2000

The Examiner rejected claims 1-4, 7-9 and 11-13 under 35 U.S.C.
§ 103(a) as unpatentable over Soultanian and Pfenning.

The Examiner rejected claims 5 and 6 under 35 U.S.C. § 103(a) as
unpatentable over Soultanian, Pfenning and Kienzler.

The Examiner rejected claim 10 under 35 U.S.C. § 103(a) as
unpatentable over Soultanian, Pfenning and Davis.

The Examiner rejected claim 14 under 35 U.S.C. § 103(a) as
unpatentable over Soultanian, Pfenning and Huppert.

The Examiner rejected claims 17, 18 and 21 under 35 U.S.C. § 103(a) as unpatentable over Soultanian, Wahl and Pfenning.

The Examiner rejected claims 19 and 20 under 35 U.S.C. § 103(a) as unpatentable over Soultanian, Wahl, Pfenning and Kienzler.

We AFFIRM.

ISSUE

The dispositive issue in the present appeal is whether the Appellants have shown that the Examiner erred in relying on Pfenning, and thus, erred in rejecting the appealed claims based on Pfenning in combination with other prior art references of record.

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Soultanian describes a vibrator motor including a stationary piece (stator 10) having a plurality of laminations (38) and a moving piece (armature 12) having a plurality of laminations (40), where the moving piece is hingedly secured to the stationary piece (col. 3, ll. 40-44; figs. 1-5).

2. The motor of Soultanian does not describe interlocking the moving piece laminations and the stationary piece laminations so that the laminations form a hinge that secures the moving piece laminations to the stationary piece laminations. Instead, the motor of Soultanian utilizes a housing member (30), a pivot (20) and a spacing member (48) to hinge the

stationary piece and the moving piece together (col. 3, ll. 44-50 and 56-61; figs. 1-3).

3. Pfenning describes a relay where moving piece laminations (movable armature 16) are hingedly secured to the stationary piece laminations (magnet frame 10) via extension (17) and bore (18) to thereby form a hinge (col. 2, l. 50-col. 3, l. 1; col. 3, ll. 11-15; fig. 1).

PRINCIPLES OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 127 S.Ct. at

1 1739. The Court also explained that “when a patent claims a structure
2 already known in the prior art that is altered by the mere substitution of one
3 element for another known in the field, the combination must do more than
4 yield a predictable result.” *Id.* at 1739-40.

5 The Court further stated that:

6 When a work is available in one field of endeavor,
7 design incentives and other market forces can
8 prompt variations of it, either in the same field or a
9 different one. If a person of ordinary skill can
10 implement a predictable variation, §103 likely bars
11 its patentability. For the same reason, if a
12 technique has been used to improve one device,
13 and a person of ordinary skill in the art would
14 recognize that it would improve similar devices in
15 the same way, using the technique is obvious
16 unless its actual application is beyond his or her
17 skill.

18 *Id.* at 1740.

19 The Court noted that “[t]o facilitate review, this analysis should be
20 made explicit.” *Id.* at 1741 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir.
21 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere
22 conclusory statements; instead, there must be some articulated reasoning
23 with some rational underpinning to support the legal conclusion of
24 obviousness”)). However, “the analysis need not seek out precise teachings
25 directed to the specific subject matter of the challenged claim, for a court
26 can take account of the inferences and creative steps that a person of
27 ordinary skill in the art would employ.” *KSR*, 127 S.Ct. at 1741.

ANALYSIS

Initially, the Appellants state that the ground of rejection to be reviewed on appeal is whether independent claim 1 would have been obvious over Soultanian and Pfenning, and more particularly, whether Pfenning is an analogous prior art reference (App. Br. 11). The Appellants further state that dependent claims 2-14, independent claim 17 and dependent claims 18-21 stand or fall together (App. Br. 11). The Appellants do not make any separate arguments in favor of independent claim 17, or dependent claims 2-14 and 18-21, apart from claim 1.

The Examiner rejected claim 1 stating that Soultanian describes all of the limitations recited in claim 1 except for the limitation “the moving piece laminations and the stationary piece laminations form a hinge which secures the moving piece laminations to the stationary piece laminations” (Ans. 3 and 4). The Examiner relies on Pfenning to cure this deficiency stating that it would have been obvious to provide the motor of Soultanian with the hinge of Pfenning (Ans. 4).

The Appellants first contend that the Examiner erred in finding that Soultanian describes the recited interlocking of the moving piece laminations and the stationary piece laminations (App. Br. 12; Reply Br. 2). Secondly, the Appellants contend that Pfenning is not an analogous reference because it describes a relay instead of a vibrator motor claim 1 (App. Br. 14). Moreover, the Appellants also contend that there is no motivation or suggestion to combine Soultanian and Pfenning (App. Br. 16).

1 Firstly, the Appellants' argument that Soultanian does not describe the
2 limitation "interlocking the moving piece laminations with the stationary
3 piece lamination" is unpersuasive. During prosecution, claims are to be
4 given their broadest reasonable construction in light of the specification as it
5 would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of*
6 *Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Moreover, "[a]bsent
7 claim language carrying a narrow meaning, the PTO should only limit the
8 claim based on the specification or prosecution history when those sources
9 expressly disclaim the broader definition." *In re Bigio*, 381 F.3d 1320, 1325
10 (Fed Cir. 2004).

11 The term "interlock" is defined, *inter alia*, as "to connect so that the
12 motion or operation of any part is constrained by another." Marriam-
13 Webster's Collegiate Dictionary, 11th Ed. (2007). There does not appear to
14 be a specific definition of "interlock" or "interlocking", or a disclaimer
15 within the Specification of such a broad definition. Thus, when the broad
16 construction of "interlocking" is applied, we find that connection of the
17 moving piece laminations with the stationary piece laminations using
18 additional components (such as a housing member (30), a pivot (20) and a
19 spacing member (48) (FF 2)) as described in Soultanian satisfies the recited
20 interlocking limitation of independent claim 1.

21 Moreover, even accepting, *arguendo*, that Soultanian does not
22 describe the recited interlocking of the moving piece and the stationary
23 piece, the outcome of the present appeal is not impacted because Pfenning
24 clearly describes this limitation as well (FF 3), and we find that the

1 Examiner properly relied upon Pfenning in rejecting claim 1 as discussed
2 *infra*.

3 The Appellants' contentions that Pfenning is not an analogous
4 reference and that the Examiner erred in relying on Pfenning are based on
5 the fact that Pfenning describes a relay instead of a motor (App. Br. 14 and
6 15). In this regard, the Appellants point out that vibrator motors and relays
7 are classified in different classes by the USPTO (App. Br. 14). The
8 Appellants also argue that a relay is unlike a motor because a relay does not
9 drive a workload or operate continuously like a motor, but instead, merely
10 makes and breaks electrical contact in response to command signals (App.
11 Br. 14; Reply Br. 2). In this regard, the Appellants contend that Pfenning
12 does not address the problem addressed by the claimed invention (App. Br.
13 15), and that even if Pfenning is an analogous reference, there is no
14 motivation or suggestion to combine Soultanian and Pfenning (App. Br. 16).

15 Even accepting, *arguendo*, that Pfenning is not within the same field
16 of endeavor because of differences between motors and relays, such a
17 finding does not preclude the Examiner from properly relying on Pfenning in
18 rejecting the Appellants' claims. In particular, the Supreme Court has held
19 that "[w]hen a work is available in one field of endeavor, design incentives
20 and other market forces can prompt variations of it, either in the same field
21 or a different one." *KSR*, 127 S.Ct. at 1740 (emphasis added). Moreover,
22 the Federal Circuit has held that "[a] reference is reasonably pertinent if,
23 even though it may be in a different field from that of the inventor's
24 endeavor, it is one which, because of the matter with which it deals,

1 logically would have commended itself to an inventor's attention in
2 considering his problem.” *In re Icon Health and Fitness, Inc.*, 496 F.3d
3 1374, 1379-80 (Fed. Cir. 2007).

4 In the present case, the difference between the Appellants’ invention
5 of claim 1 and Soultanian is that the motor described in Soultanian has a
6 hinge formed by a housing member (30), a pivot (20) and a spacing member
7 (48) (FF 1 and 2), instead of a hinge formed by the moving piece
8 laminations and the stationary piece laminations. However, the Examiner
9 finds this distinction to be obvious to one of ordinary skill because
10 “Soultanian and Pfenning incorporate very similar structure[s]” and “it is old
11 and well known for an apparatus including moving piece lamination being
12 pivotally hinged to stationary piece laminations to incorporate a hinge that is
13 formed by the moving and stationary pieces and not by an additional
14 structure” (Ans. 10).

15 We agree with the Examiner’s findings and conclude that the
16 Appellants’ invention of claim 1 merely applies the known technique of
17 incorporating hinge features into the laminate components (as shown in
18 Pfenning) to laminate components for a vibrator motor that is structurally
19 similar to a relay. *See KSR*, 127 S.Ct. at 1740 (*stating* “if a technique has
20 been used to improve one device, and a person of ordinary skill in the art
21 would recognize that it would improve similar devices in the same way,
22 using the technique is obvious unless its actual application is beyond his or
23 her skill”). In the above regard, we also find that Pfenning is reasonably
24 pertinent because Pfenning commends itself to the attention of a person of

1 ordinary skill in the art who is considering how to hingedly secure moving
2 piece laminations to stationary piece laminations. *See In re Icon Health and*
3 *Fitness*, 496 F.3d at 1379-80. Therefore, in view of the above, we conclude
4 that the Appellants have not shown that the Examiner erred in relying on
5 Pfenning.

6 With regard to the Appellants' argument that there is no motivation or
7 suggestion to combine Soultanian and Pfenning (App. Br. 16), we note that
8 the Examiner "need not seek out precise teachings directed to the specific
9 subject matter of the challenged claim." *KSR*, 127 S.Ct. at 1741. What is
10 required is for the Examiner to provide "some articulated reasoning with
11 some rational underpinning to support the legal conclusion of obviousness."
12 *Id.* In the present appeal, the Examiner articulated a reason for applying the
13 teachings of Pfenning to the hinge of Soultanian, namely, "to allow the
14 apparatus to incorporate less parts by substituting a hinge formed by the
15 moving and stationary laminations instead of a third party hinge apparatus"
16 (Ans. 4). We find the Examiner's articulated reason to be rational and
17 sufficient for concluding that claim 1 would have been obvious to one of
18 ordinary skill in the art. *See also Leapfrog Enterprises, Inc. v. Fisher Price,*
19 *Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) ("[O]ne of ordinary skill in the
20 art . . . would have found it obvious to combine the Bevan device with the
21 SSR to update it using modern electronic components in order to gain the
22 commonly understood benefits of such adaptation, such as decreased size,
23 increased reliability, simplified operation, and reduced cost.")

Therefore, in view of the above, we find that the Appellants have not shown that the Examiner erred in relying on Pfenning, or that the Examiner erred in rejecting claim 1 as unpatentable over Soultanian and Pfenning. As the Appellants have not presented any separate arguments as to the remaining claims on appeal, the Appellants likewise have not shown that the Examiner erred in rejecting claims 2-14 and 17-21.

CONCLUSION

On the record before us, Appellants have not shown that the Examiner erred in relying on Pfenning, or that the Examiner erred in rejecting the appealed claims.

ORDER

The Examiner's rejections of claims 1-14 and 17-21 are AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

ack

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